DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028958 Address: 333 Burma Road **Date Inspected:** 09-Jan-2013

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No Fred Michels and Barry Drake

Inspected CWI report: Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** SAS Tower and OBG

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Tower elevation 154meter, ABF welder Richard Garcia was observed continuing to perform all around 8mm fillet welding on four (4) 300mm long x 150mm wide x 12mm bracket plate for Tower Head to grillage ladder between south shaft and east shaft chimney. The welder was noted using self-shielded Flux Cored Arc Welding (FCAW-S) with 1.6mm E71T-8 wire electrode implementing ABF-WPS-D1.5-F2200-3. The bracket plates being welded are the holding bracket for the tower head to grillage ladder. Prior welding, the plates were preheated using propylene gas torch. During the shift, ABF QC Fred Michels was noted on site monitoring the welder Richard Garcia. During the shift, 8mm all around fillet welding of the four bracket plates for the ladder was completed.

After the completion of the four holding brackets for the tower head to grillage ladder, ABF welder Ric Chouinard was noted perform carbon air arc gouging to put a bevel on the 'F' plate in preparation for the PJP welding between the same 'F' plate to top of the grillage plate per reference cross section E-E of the Tower Head Details No. 7. The welder ground smooth the surface of the gouged area and then performed 4G Shielded Metal Arc Welding (SMAW) welding root pass on the PJP weld joint. Another ABF welder Richard Garcia was also noted performing root pass welding on the same joint. After the completion of the root pass, ABF QC Fred Michels performed Magnetic Particle Testing (MT) on the completely welded root pass. ABF QC has found no significant indication during the MT and so the two welders Ric Chouinard and Richard Garcia resumed welding fill pass until the end of the shift.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on 12W-W2.1-C1 corner drop-in splice butt joint mentioned below. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 12W-W2.1-C1 longitudinal splice butt joint – CJP weld cover QA VT/MT verified.

FW Spencer:

At tower elevation 145meter, this QA randomly observed FW Spencer qualified welder Damian Llanos perform socket welding on 2" diameter pipe to 2" diameter 45 degree elbow using Shielded Metal Arc Welding (SMAW). The system line being welded is a compressed air field branch joint near the tower head. The welder was noted preheating and removing the moisture of the joint using a portable propane gas torch prior welding. During welding, ABF QC Barry Drake was noted monitoring the parameters of the welder. At the end of the shift, two (2) 2" diameter field branch joints were completed.









Summary of Conversations:

No significant conversation occurred today.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Reyes, Danny	QA Reviewer